

PREPROCESSING SIGNAL LAYERS IN A LAYERED MODULATION DIGITAL
SIGNAL SYSTEM TO USE LEGACY RECEIVERS

ABSTRACT OF THE DISCLOSURE

5 Systems and methods for receiving non-coherent layered modulation signals are
presented. An exemplary apparatus comprises a tuner for receiving a layered signal and
producing a layered in-phase signal and a layered quadrature signal therefrom, an analog-to-
digital converter for digitizing the layered in-phase signal and the layered quadrature signal, a
processor for decoding the layered in-phase signal and the layered quadrature signal to
10 produce a single layer in-phase signal and a single layer quadrature signal, a digital-to-analog
encoder for converting the single layer in-phase signal and the single layer quadrature signal
to a single layer in-phase analog signal and a single layer quadrature analog signal and a
modulator for modulating the single layer in-phase analog signal and the single layer
quadrature analog signal to produce a single layer signal.